

Listing of the Claims:

1. (Currently Amended) A combustion gas extraction probe for extracting a high-temperature combustion gas while cooling said high-temperature combustion gas with a low-temperature gas characterized by making said low-temperature gas flow in a direction that is substantially perpendicular to a sucking direction of the high-temperature combustion gas and is toward a center of a flow of said high-temperature combustion gas such that said low-temperature gas reaches the centermost portion of said high-temperature combustion gas for mixed cooling **and that any vector component of said low-temperature gas that is parallel to the flow direction of said high-temperature gas is in a downstream direction of the high-temperature combustion gas.**

2. (Original) The combustion gas extraction probe as claimed in claim 1 comprising:

- an inner tube in which the high-temperature combustion gas flows;
- an outer tube surrounding said inner tube;
- a low-temperature gas discharge hole provided in said inner tube; and
- a low-temperature gas supply means for supplying the low-temperature gas between the inner tube and the outer tube, and discharging the low-temperature gas from the discharge hole into the direction that is substantially perpendicular to the sucking direction of the high-temperature combustion gas and is toward the center of the flow of said high-temperature combustion gas.

3. (Withdrawn) The combustion gas extraction probe as claimed in claim 1 comprising:

- an inner tube in which the high-temperature combustion gas flows;
- an outer tube surrounding said inner tube and having a folded portion to cover a head of the inner tube;
- a low-temperature gas discharge hole provided at a portion of said folded portion, said portion of the folded portion facing the high-temperature combustion gas; and
- a low-temperature gas supply means for supplying the low-temperature gas between the inner tube and the outer tube, and discharging the low-temperature gas

from the discharge hole into the direction that is substantially perpendicular to the sucking direction of the high-temperature combustion gas and is toward the center of the flow of said high-temperature combustion gas.

4. (Previously Amended) The combustion gas extraction probe as claimed in claim 2, wherein a plurality of said low-temperature gas discharge holes are provided, and individual discharge holes are rotationally symmetrically arranged at substantially the same positions from a head of the probe in the high-temperature combustion gas sucking direction.

5. (Previously Amended) The combustion gas extraction probe as claimed in claim 2, wherein a plurality of said low-temperature gas discharge holes are arranged in stages in the high-temperature combustion gas sucking direction.

6. (Previously Amended) The combustion gas extraction probe as claimed in one of claims 1-2 and 4-5, wherein flow speeds of the low-temperature gas and the high-temperature combustion gas are not less than 40 m/s and not more than 100 m/s.

7. (Previously Amended) The combustion gas extraction probe as claimed in one of claims 1 and 4-5, characterized by having a blaster injecting compressed air in an opposite direction to the sucking direction of the high-temperature combustion gas at a head of the probe.

8. (Withdrawn) A combustion gas treatment method using said combustion gas extraction probe claimed in one of claims 1-2 and 4-5 characterized in that regardless of amount of the high-temperature combustion gas extracted, amount of the low-temperature gas discharged is substantially uniformly maintained, and cooling gas is mixed again between an exit of said probe and an extracted gas disposal equipment in a rear stage of said probe to adjust said combustion gas to a predetermined temperature.